

Use Case – Create MMS Real Time Model
COWM.P04RunRTMarket_UC_CreateMMSRTModel_V0.4

Name: Create the Current Real Time Model

Summary:

Create the current Real Time Model for the MMS using the NMMS software and the selected NOMCRs as required. The output is a CIM XML file that is generated per the CPSM specification plus the ERCOT CIM extensions. The RT Contingency File and the RT Settlement File will also be packaged and sent with this model.

Acronyms:

ERCOT	Electric Reliability Council of Texas
MMS	Market Management System
MP	Market Participant
NMMS	Network Model Management System
NOMCR	Network Operations Model Change Request (AKA: Project Files)
MC	ERCOT Model Coordinator
SAMR	Special Action Model Request
TSP	Transmission Service Provider
RT	Real Time

Actor(s):

Name	Role description
MC at ERCOT	Selects the Approved and Scheduled NOMCRs to be included in the current Real Time Model and creates the MMS Model for today. Attaches the supporting files as required (Contingency file, Settlement File, etc.).

Participating Systems:

System	Services or information provided
Market Management System (MMS)	Receives the Model after the Case Builder completes the Real Time Model build
NMMS at ERCOT	The MC uses the Case Builder with the NMMS to build the Real Time Model using the selected NOMCRs. The supporting files containing the Contingency definitions and the Settlement Points are also sent to the MMS. The Real Time Model is generated based on the CPSM format and delivered in a CIM/XML RDF file. The Real Time Model build contains the required ERCOT extensions to the CIM schema, which are included within the generated Model file.

Pre-conditions:

NONE

Design Considerations:

- None

Known assumptions, limitations, constraints, or variations that may affect this use case:

- There will be a single Real Time Model generated each day.
- The time for this generation still needs to be determined.
- Only posted approved NOMCRs will be included in the RT Model
- This model will also contain all Interim Update NOMCRs received prior to the build.
- This model contains a subset of the Real Time Operations Model generated for the production EMS.

Normal Sequence:

Use Case Step	Description	From - To	Information Content
Step 1	Based on inputs from the MC, the NMMS software inserts the selected NOMCRs into the MMS Real Time Model	(from) NMMS to (to) NMMS	
Step 2	NMMS software creates the CPSM model file with specific ERCOT CIM extensions and sends the CIM/XML RDF file, which represents the Real Time model to the MMS	(from) NMMS to (to) MMS	The model is in the CPSM format and contains ERCOT CIM extensions. They are delivered in CIM/XML RDF. The package also contains the supporting files such as RT Contingency files and RT Settlement Files.

Exceptions / Alternate Sequences:

NONE

Post-conditions:

NONE

References:

Use Cases referenced by this use case, or other documentation that clarifies the requirements or activities described.

- COWM.P04.RunRTMarket_UC_CreateRTSettlementFile

- COPS.P01.ModelManageData_UC_ProcessContingencyDefinition
- COWM.P04.RunRTMarket_UC_CreateRTContingencyFile

The following Standards and other documents are referenced by this case:

- IEC 61970-452-Rev 2 CIM Network Application Model Exchange Specification (NERC CPSM Specification)
- IEC 61970-552-4, CIM/XML Model Exchange Format Rev6 20050505 Standard (Incremental Change Specification)
- IEC 61970-501, CIM RDF Schema
- ERCOT Nodal Protocols
- ERCOT NMMS Requirements

Issues:

ID	Description	Status
1.	Description of the ERCOT CIM extensions to be included in the Real Time Model	In Work

Revision History:

No	Date	Author	Description
0		J. Winkel	Initial Version
2	8/26/06	M. Goodrich	Review changes and made additional revisions
3	9/10/06	M. Goodrich	Added Comments from Crews and Moseley
4	9/18/06	M. Goodrich	Added edits from NMG